Review of helminths from rare waterfowls in Ukraine

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Helminth fauna of waterfowl is well studied on territory Ukraine. The data on the helminths of rare waterfowl are contained in numerous faunistic works. But there are no works in which only helminths of rare waterfowl are considered. Our aim is to generalize all existing data about this subject in the survey. Due to achieving this purpose, the data from IZSC and literature are used. There are 37 species of waterfowl in Ukraine that are suggested as rare. Data on helminths of 32 waterfowl's species are available. In total, 294 species of helminths are registered in rare waterfowls on the territory of Ukraine. It is found 112 cestode species, 115 trematode species, 53 nematode species, and 14 acanthocephalan species. The data about helminth of each order of bird are shown in Table 1. Low species diversity of helminths of Falconiformes and Ciconiiformes is connected with a very low number of surveyed birds.

Table 1. Representation of helminth groups for each bird order.

	Trematoda, Cestoda	Cestoda	Nematoda	Acanthocephala	Total
Charadriiformes	59	64	15	14	152
Anseriformes	43	36	17	3	99
Pelecaniformes	22	19	20	2	63
Falconiformes	4		2		6
Ciconiiformes	2		2		4

Majority species of helminths are low host-specific. And only 10 species of helminths can be considered as highly host-specific. Because these parasites are able to develop only in the single species of the definitive host. Helminths with a wide range of definitive hosts have a higher level of prevalence than ones with the single definitive host. The intermediate hosts of these helminths are widespread species of fishes and invertebrate.

We conclude that species diversity of helminths from rare waterfowls on the territory of Ukraine are defined by species diversity of widespread species of animal which could be hosts for these parasites on different stages of the life-cycle.